

In the Claims:

Please amend the claims as follows:

1. (Currently Amended) A bone substitute material comprising at least the following components:

- a) a soft matrix, which is formed by mixing the living cells of b) with a fibrinogen solution and then a thrombin solution;
- b) living cells, at least some of which are osteoblasts or precursors thereof;
- c) a setting matrix, which is formed by mixing the soft matrix of a) with a setting material comprising an aqueous solution of non-ceramic hydroxyapatite cement.

Claims 2 and 3. (cancelled).

4. (Currently Amended) A bone substitute material ~~as claimed in claim 2 or 3~~ of claim 1, wherein the soft matrix further comprises ϵ -aminocaproic acid or aprotinin.

5. (Currently Amended) A bone substitute material as claimed in ~~any of the preceding claims~~ claim 1, wherein the soft matrix comprises at least one substance ~~which is~~ selected from the group ~~comprising~~ consisting of chondroitin sulfate, proteoglycans, sialoproteins, growth factors, hormones, ~~and~~ nucleic acids coding for growth factors ~~or~~ and hormones.

6. (Currently Amended) A bone substitute material as claimed in ~~any of the preceding claims~~ claim 1, wherein the soft matrix comprises at least one substance selected from the group ~~comprising~~ consisting of biological collagen gel, gelatin, alginates, agarose, polysaccharides, synthetic collagen, hydrogels and viscous polymers.

7. (cancelled).

8. (Currently Amended) A bone substitute material as claimed in any ~~of the preceding~~ one

of claims 1, 4, 5, or 6, which additionally comprises living angiogenic cells.

9. (Currently Amended) A bone substitute material ~~as claimed in~~ of claim 8, wherein the angiogenic cells are endothelial cells or ~~their precursor cells~~ precursors thereof.

Claims 10 and 11. (cancelled).

12. (Currently Amended) A bone substitute material ~~as claimed in~~ of any one of claims 1, 4, 5, 6 or 9 ~~to 10~~, wherein the setting matrix comprises polyglycolic/lactic acid (PGLA).

13. (Currently Amended) A bone substitute material as claimed in ~~any of the preceding claims~~ claim 12, wherein the setting matrix solidifies within 15 minutes.

Claims 14-27 (cancelled).

28. (Original) A device for preparing and administering a mixture comprising

- a) a mixing chamber with an outlet opening through which the mixture can emerge,
- b) a first supply channel (main channel) leading into the mixing chamber and
- c) one or more other supply channels (subsidiary channels) leading into the mixing chamber,

where the end of the subsidiary channel/the ends of the subsidiary channels are arranged in the mixing chamber so that material entering the mixing chamber from the subsidiary channel/subsidiary channels can penetrate into the material stream entering the mixing chamber from the main channel.

29. (Original) A device as claimed in claim 28, wherein the internal diameter of the main channel is at least 1 mm.

30. (Currently Amended) A device as claimed in claim 28 ~~or 29~~, wherein the internal

diameter of the subsidiary channel/subsidiary channels is not more than 1.5 mm.

31. (Currently Amended) A device as claimed in ~~any of claims~~ claim 28 ~~to 30~~, which comprises 3 to 5 subsidiary channels.

32. (Currently Amended) A device as claimed in ~~any of claims~~ claim 28 ~~to 31~~, wherein the ends of the subsidiary channels in the mixing chamber are arranged essentially symmetrically around the end of the main channel in the mixing chamber.

33. (Currently Amended) A device as claimed in ~~any of claims~~ claim 28 ~~to 32~~, wherein the end of the subsidiary channel/the ends of the subsidiary channels in the mixing chamber intersect with the imaginary extension of the main channel in the mixing chamber.

34. (Currently Amended) **[[A]] The** device as claimed in ~~any of claims~~ claim 28 ~~to 33~~, wherein the supply channels are connected to storage containers from which the contents of the storage containers can be delivered into the supply channels.

35. (Currently Amended) **[[A]] The** device ~~as claimed in~~ of claim 34, wherein the storage containers are syringes.

Claims 36 and 37. (cancelled).

38. (New) The device of claim 28, wherein said mixture is a bone substitute material comprising at least the following components:

- a) a soft matrix, which is formed by mixing the living cells of b) with a fibrinogen solution and then a thrombin solution;**
- b) living cells, at least some of which are osteoblasts or precursors thereof;**
- c) a setting matrix, which is formed by mixing the soft matrix of a) with a setting material comprising an aqueous solution of non-ceramic hydroxyapatite cement.**

39. (New) The bone substitute material of claim 1, which is produced in a device for

preparing and administering a mixture, said device comprising:

- a) a mixing chamber with an outlet opening through which the mixture can emerge,**
- b) a first supply channel (main channel) leading into the mixing chamber and**
- c) one or more other supply channels (subsidiary channels) leading into the mixing chamber,**

where the end of the subsidiary channel/the ends of the subsidiary channels are arranged in the mixing chamber so that material entering the mixing chamber from the subsidiary channel/subsidiary channels can penetrate into the material stream entering the mixing chamber from the main channel.